Small Business Innovation Research

Advanced Electrode Materials for Lithium-ion Rechargeable Battery

Materials & Electrochemical Research (MER) Corporation
Tucson, AZ

INNOVATION

Anode materials with high capacity for lithium-ion rechargeable batteries

ACCOMPLISHMENTS

- Optimized the production of the unique fullerene nanotube materials
- Developed processes to purify, increase the yield, and open the closed end of the nanotubes
- Characterized the electrochemical performance of the nanotubes
- Developed electrode fabrication technology
- Assembled and tested full cells

COMMERCIALIZATION

- Commercial sales - more than $600K
- Obtained a commitment for $2.5M to develop a commercialization plan and establish a prototype production

High Performance Lithium-ion Rechargeable Batteries

GOVERNMENT/SCIENCE APPLICATIONS

- Aerospace batteries for use in satellites
- Low cost, and high energy density battery for portable consumer products such as cell phones, lap tops, etc.
- Use as portable power source for various military applications
- Electric vehicle application

Glenn Research Center
Space Power
3-024

1994 Phase II, NAS3-27675, 5/99
NASA Contact - John Dickman
Company Contact - Dr. R. O. Loutfy